

What is claimed is:

1. An optical component, comprising a substrate, an optical material layer which is formed on this substrate, an organosilicon resin layer which covers this optical material
5 layer, and a solid component which is stacked on this organosilicon resin layer, wherein the optical material layer is prepared by drying a material containing any of a hydrolyzed solution of metal alkoxide, a solution of a polymer and a polymerizable monomer dissolved in an organic solvent,
10 and a solution of an ionic bond crystal material dissolved in a solvent.

2. The optical component according to claim 1, wherein a spacer which surrounds an outer periphery of the optical material layer is provided between the substrate and the solid
15 component, the spacer being formed to have a thickness larger than that of the optical material layer.

3. The optical component according to claim 1, wherein a spacer is formed between the substrate and the solid component by curing an outer periphery of the optical material layer,
20 the spacer being formed to have a thickness larger than that of an inner portion of the outer periphery of the optical material layer.

4. An optical component, comprising a substrate, an optical material layer which is formed on this substrate, an
25 organosilicon resin layer which covers this optical material

layer, and a spacer which surrounds an outer periphery of the optical material layer, wherein: the optical material layer is prepared by drying a material containing any of a hydrolyzed solution of metal alkoxide, a solution of a polymer and a polymerizable monomer dissolved in an organic solvent, and a solution of an ionic bond crystal material dissolved in a solvent; and the spacer is formed to have a thickness larger than that of the optical material layer.

5. An optical component, comprising a substrate, an optical material layer which is formed on this substrate, an organosilicon resin layer which covers this optical material layer, and a spacer which is formed by curing an outer periphery of the optical material layer, wherein: the optical material layer is prepared by drying a material containing any of a hydrolyzed solution of metal alkoxide, a solution of a polymer and a polymerizable monomer dissolved in an organic solvent, and a solution of an ionic bond crystal material dissolved in a solvent; and the spacer is formed to have a thickness larger than that of an inner portion of the outer periphery of the optical material layer.

6. The optical component according to any one of claims 1 to 5, wherein a refractive index of the optical material layer is approximately the same as a refractive index of the organosilicon resin.

7. The optical component according to any one of claims 1

to 5, wherein the optical material layer is formed of the metal alkoxide, and the metal alkoxide contains Si alkoxide as a main ingredient.

8. The optical component according to any one of claims 1 to 5, wherein; the optical material layer is formed of a single material having a refractive index of n ; and a refractive index n_0 of the organosilicon resin layer satisfies $n - 0.05 < n_0 < n + 0.05$.

9. The optical component according to claim 6, wherein; the optical material layer is formed of a single material having a refractive index of n ; and a refractive index n_0 of the organosilicon resin layer satisfies $n - 0.05 < n_0 < n + 0.05$.

10. The optical component according to claim 7, wherein; the optical material layer is formed of a single material having a refractive index of n ; and a refractive index n_0 of the organosilicon resin layer satisfies $n - 0.05 < n_0 < n + 0.05$.

11. The optical component according to any one of claims 1 to 5, wherein: the optical material layer comprises a material having a refractive index of n_1 and a material having a refractive index of n_2 , n_1 being smaller than n_2 ; and a refractive index n_0 of the organosilicon resin layer satisfies $n_1 < n_0 < n_2$.

12. The optical component according to claim 6, wherein:

the optical material layer comprises a material having a refractive index of n_1 and a material having a refractive index of n_2 , n_1 being smaller than n_2 ; and a refractive index n_0 of the organosilicon resin layer satisfies $n_1 < n_0 < n_2$.

5 13. The optical component according to claim 7, wherein:
the optical material layer comprises a material having a refractive index of n_1 and a material having a refractive index of n_2 , n_1 being smaller than n_2 ; and a refractive index n_0 of the organosilicon resin layer satisfies $n_1 < n_0 < n_2$.

10 14. The optical component according to claim 8, wherein:
the optical material layer comprises a material having a refractive index of n_1 and a material having a refractive index of n_2 , n_1 being smaller than n_2 ; and a refractive index n_0 of the organosilicon resin layer satisfies $n_1 < n_0 < n_2$.

15 15. The optical component according to claim 11, wherein:
the optical material layer is formed of three or more types of materials including a material having a maximum refractive index n_{\max} and a material having a minimum refractive index n_{\min} ; and the refractive index n_0 of the organosilicon resin
20 layer satisfies $n_{\min} < n_0 < n_{\max}$.

 16. The optical component according to claim 12, wherein:
the optical material layer is formed of three or more types of materials including a material having a maximum refractive index n_{\max} and a material having a minimum refractive index
25 n_{\min} ; and the refractive index n_0 of the organosilicon resin

layer satisfies $n_{\min} < n_0 < n_{\max}$.

17. The optical component according to claim 13, wherein:
the optical material layer is formed of three or more types of
materials including a material having a maximum refractive
index n_{\max} and a material having a minimum refractive index
 n_{\min} ; and the refractive index n_0 of the organosilicon resin
layer satisfies $n_{\min} < n_0 < n_{\max}$.

18. The optical component according to claim 14, wherein:
the optical material layer is formed of three or more types of
materials including a material having a maximum refractive
index n_{\max} and a material having a minimum refractive index
 n_{\min} ; and the refractive index n_0 of the organosilicon resin
layer satisfies $n_{\min} < n_0 < n_{\max}$.

19. An optical recording medium, wherein the solid
component in the optical component according to any one of
claims 1 to 18 is configured to serve as a translucent
substrate provided parallel to the substrate.

20. A manufacturing method for an optical component,
comprising the steps of:

applying a material among materials containing any of a
hydrolyzed solution of metal alkoxide, a solution of a polymer
and a polymerizable monomer dissolved in an organic solvent,
and a solution of an ionic bond crystal material dissolved in
a solvent;

forming a gel-like or solid-like optical material layer

by removing a solvent from the applied material through drying;

coating this gel-like or solid-like optical material layer with an organosilicon resin layer; and

5 stacking the solid component with the optical material layer and the organosilicon resin layer sandwiched between the substrate and the solid component.

21. The manufacturing method for an optical component according to claim 20, comprising the step of surrounding an
10 outer periphery of the optical material layer with a spacer having a thickness larger than a maximum thickness of the outer periphery, and

wherein: a solution material containing the optical material is injected inside a portion surrounded by the
15 spacer; and

the solid component is abutted onto the spacer to position the solid component with respect to the substrate.

22. The manufacturing method for an optical component according to claim 20, comprising the step of curing an outer
20 periphery of the optical material layer such that a height thereof is larger than a thickness of an inner portion thereof, and

wherein the solid component is stacked so as to abut onto the cured outer periphery.

25 23. The manufacturing method for an optical component

according to claim 22, wherein, after the outer periphery of the optical material layer is pressed to make the height uniform, the outer periphery is irradiated with a ray for curing.

- 5 24. A manufacturing method for an optical recording medium, wherein the solid component in the step of stacking the solid component according to any one of claims 20 to 23 is a translucent substrate.